DOCUMENT RESUME

ED 303 193 JC 890 044

AUTHOR Grossman, Gary M.; Duncan, Mary Ellen
TITLE Assessing the Institutional Effectiveness of Community and Technical Colleges.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
PUB DATE Dec 88
NOTE 67p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS College Role; Community Colleges; *Educational Assessment; Educational Quality; *Evaluation Criteria; *Institutional Research; Models; *Organizational Objectives; Outcomes of Education; *School Effectiveness; *Self Evaluation (Groups); Technical Institutes; Two Year Colleges

ABSTRACT

The model and instrument presented in this report were developed by the National Alliance of Community and Technical Colleges (NACTC) and the National Center for Research in Vocational Education for measuring a college's performance in terms of external demands and its own stated mission. Part I of the report describes the development of the model, including a review of the literature on the issue of institutional effectiveness, background information on the creation of a task force of the NACTC to address the issue, and the Alliance's model of institutional effectiveness. The model identifies six concerns faced by all colleges: (1) access and equity; (2) employment preparation and placement; (3) college/university transfer; (4) economic development; (5) college/community partnerships; and (6) cultural and cross-cultural development. Related to these six areas are 38 indicators of quality, which provide a foundation for the assessment of institutional effectiveness in terms of outcomes measures related to institutional mission. The second half of the report discusses the current activities of the institutional members of the NACTC in measuring institutional effectiveness in each of the six identified areas. The appendix contains an instrument based on the six areas of institutional concern and their respective indicators. (AAC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED303193

ASSESSING THE INSTITUTIONAL EFFECTIVENESS OF COMMUNITY AND TECHNICAL COLLEGES

Gary M. Grossman
The Ohio State University

and

Mary Ellen Duncan
Catonsville Community College
National Alliance of Community and Technical Colleges

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. Pfister

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210-1090

December 1988

JC 890 044

BEST COPY AVAILABLE

THE NATIONAL CENTER MISSION STATEMENT

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research
- Developing educational programs and products
- Evaluating individual program needs and outcomes
- providing information for national planning policy
- Installing educational programs and products
- Operating information systems and services
- Conducting leadership development and training programs

FOREWORD

The National Center for Research in Vocational Education wishes to express its appreciation to a number of individuals who actively participated in developing this document. Of special importance in this regard is the membership of the National Alliance of Community and Technical Colleges and its Task Force composed of Dr. Mary Ellen Duncan (Chair), Catonsville Community College; Dr. Don Cameron, Guilford Technical College; Dr. Luene Corwin, Manchester Community College; Dr. William Miller, Columbus State College; Dr. Judy Maxson, Hocking Technical College; Dr. Mary P. Robertson-Smith, Bergen Community College; and Dr. Donald P. Altieri, Catawba Valley Community College. These leaders stimulated the involvement and commitment of the membership that provided the basis for the relevance and applicability of the document.

The National Center staff served under the direction of Dr. Mark Newton, Associate Director of the National Center and Director of the National Alliance. Dr. Gary Grossman was the Project Director and Ms. Lauri Miguel provided valuable technical and logistical support toward the success of the project. Ms. Catharine Warmbrod also assisted in several critical areas, including fostering much of the initial conceptualization of the project as well as serving as a key consultant during its course. Ms. Mary LaBelle provided some of the earlier typing support on the project. Ms. Monyeene Elliott typed the final draft of the report, which received the editorial expertise of Ms. Judy Balogh.

We are happy to have contributed to the completion of this study and to have worked with our colleagues at the National Alliance to have made another important contribution to post-secondary education.

Ray D. Ryan, Executive Director
The National Center for Research
in Vocational Education
The Ohio State University

EXECUTIVE SUMMARY

The community and technical college system in America has experienced a major transformation over the past 25 years. From its roots in the "junior college" system with a primary task of providing student access to 4-year baccalaureate programs, such institutions have grown both in terms of numbers and in the size and scope of their respective missions. In their aggressive attempts to serve various publics, questions have arisen as to the effectiveness with which colleges serve their various and sometimes unique communities, both with regard to external agencies of governance and in terms of internal institutional goals. Part I of this report seeks to establish a means through which both concerns can be addressed through the construction of a model that is intended to provide a means of assessment of those issues with which all colleges must deal while providing sufficient flexibility in order to accommodate the diversity of schools involved in the community college movement.

The Alliance Model Of Institutional Effectiveness

The Alliance model of institutional effectiveness is initially defined in terms of a linkage between a college's mission statement, the goals which are implied by it, and the outcomes through which it can be assessed. As an hypothesis, it is asserted that goals can be expressed in terms of indicators of these outcomes, which, when measured, yield quantifiable data. These data, in turn, report on the degree of effectiveness with which the college achieves its goals. Alternatively, they also provide the basis for constructing more appropriate goals and missions if necessary.

Expressed as areas of concern, the Alliance identified six areas that must be addressed in some fashion. They are as follows:

- Access and equity
- Employment preparation and placement
- College/university transfer
- Economic development
- College/community partnerships
- Cultural and cross-cultural development

Each area is discussed in detail and its importance documented by an examination of the relevant literature.

From these topics, the use of specific small-group process techniques yielded a sample instrument containing 58 items that can be measured by colleges. The implementation of this instrument can be done in most American community and technical colleges by utilizing data already being collected. At the same time, colleges can add or substitute topic areas and indicators as would be relevant given a unique mission or service area.

Part II of the report specifies a number of means of measuring these topics which are currently in use by Alliance members. From a group of 10 Alliance member institutions that contributed sample instruments for this study, the various techniques through which these issues can be addressed are highlighted. The assertion of Part I to the effect that the suggested instrument can be implemented through the utilization of data currently being collected by the nation's community and technical colleges receives substantial support.

The study of institutional effectiveness is in many ways an emerging area of interest. Its roots, however, are in the very foundations of the "movement" that seeks to deliver postsecondary educational services to wide audiences and a multiplicity of communities. The work of the Alliance in this regard is designed to support and assist in the continuation and enhancement of this work.

CONTENTS

FOREWORD ii

EXECUTIVE SUMMARY iii

PART I. INSTITUTIONAL EFFECTIVENESS: DEVELOPING THE MODEL

INTRODUCTION 1

INSTITUTIONAL EFFECTIVENESS AS AN ISSUE: THE LITERATURE IN PERSPECTIVE 5

BACKGROUND OF NATIONAL ALLIANCE ACTIVITY 11

THE ALLIANCE MODEL OF INSTITUTIONAL EFFECTIVENESS. . 15

THE MEASUREMENT OF INSTITUTIONAL EFFECTIVENESS ACROSS COLLEGES 18

THE SUBSTANTIVE BASIS FOR ALLIANCE TOPIC CATEGORIZATION:
DEVELOPMENT OF THE INSTRUMENT. 21
Access and Equity. 21
Employment Preparation and Placement 23
College/University Transfer 25
Economic Development. 26
College/Community Partnerships 27
Cultural and Cross-Cultural Development. . . . 28

USING THE INSTRUMENT 31

SUMMARY 33

PART II. EXAMPLES FROM THE ALLIANCE MEMBERSHIP

INTRODUCTION 35

ACCESS AND EQUITY 38

EMPLOYMENT PREPARATION AND PLACEMENT 40

COLLEGE/UNIVERSITY TRANSFER 42

ECONOMIC DEVELOPMENT 44

COLLEGE/COMMUNITY PARTNERSHIPS 45

CULTURAL AND CROSS-CULTURAL DEVELOPMENT. 46

Contents--Continued

APPENDIXES 48

GLOSSARY 50

REFERENCES 51

PART I

INSTITUTIONAL EFFECTIVENESS: DEVELOPING THE MODEL

INTRODUCTION

The community and technical college system in America has experienced a major transformation in just the past 25 years. From its roots in "junior colleges" dedicated to the transition of students into 4-year baccalaureate institutions, the expansion of community and technical colleges has been stunning both in terms of a large increase in the number of such institutions and as a result of a bold attempt to provide services to a multiplicity of populations previously disregarded by higher education. Indeed, such a development justifies the frequent reference to such growth as a "movement," accurately illustrating the nature, speed, and popular support of this unprecedented emergence on to the nation's educational agenda.

Such growth, although impressive, has not been without its problems. In their aggressive attempts to serve various publics, community and technical colleges have been responsible for providing more than traditional degree granting programs leading to the Associate of Arts degree and matriculation into 4-year colleges. They have also tried to serve the local, and sometimes unique, needs of the communities in which they reside. As such, it has been difficult to assess the effectiveness of colleges, particularly when the attempt is made to compare one institution with another, as is usually done by governing bodies.

In another respect, community and technical colleges have in some measure suffered as a result of their relatively recent emergence. In contrast to the far more clearly institutionalized

roles of the K-12 system and 4-year colleges and universities, these institutions do not have a venerable historical tradition on which to rely and provide easily consumable self-definitions. This can be, of course, very consequential in terms of the allocation of often scarce dollars devoted to educational purposes that are in the control of state and local decision-making authorities. The lack of an historically understood reason to exist is often exacerbated due to the very nature and intent of community and technical colleges. As they are, in part, responsive to the special needs of the communities in which they serve, it is not at all unlikely that substantial differences exist between colleges within a state or even a city. Clearly, it becomes difficult for a college to make a case for its own effectiveness when there are few standards to which it can refer or a tradition it can cite, particularly when its peers are or appear to be on a different course. One challenge that must be addressed, therefore, is the way in which community and technical colleges define themselves for external concerns.

Beyond the problem of the accuracy and marketability of their representation to extracollegiate concerns, community and technical colleges often have difficulty in establishing how well they are meeting their own goals for many of the same reasons. As community and technical colleges vary in their scopes, missions, and service populations, comparing them one to another is an inherently flawed procedure. Yet this is the traditional mode of operation. On the other hand, performance evaluation in the absence of some objective criterion can appear to be a biased or

self-serving exercise. It is difficult, therefore, for a community college to evaluate its own progress even for its own purposes. In short, not only must an effort be made to assess the effectiveness of community and technical colleges to address external demands, it must also provide some information as to their own performances in terms of stated missions.

The National Alliance of Community and Technical Colleges, in conjunction with the National Center for Research in Vocational Education at The Ohio State University, has engaged in a process intended to develop a means through which to overcome the barriers discussed. In its work, a model and instrument have been developed that can provide measurement of the progress an institution makes with regard to general, overriding issues faced by all colleges while maintaining strong elements of flexibility in order to provide for the differences of each institution. It is intended to respond to both the internal and external demands a college must face in measuring its effectiveness. This study is a report of the culmination of that process and an explication of the resulting model. It discusses the substantive basis of the issue of institutional effectiveness in the literature, a description of the development of the response of a task force of the National Alliance to address these issues, presents a model, and proposes an instrument for its operationalization. Following a discussion of the instrument, Part II of the report will be a presentation of current efforts by selected Alliance member institutions to measure the concepts developed by the model. From these materials

it is anticipated that a sufficient foundation will be established in order for any institution to commence its own evaluation.

INSTITUTIONAL EFFECTIVENESS AS AN ISSUE: THE LITERATURE IN PERSPECTIVE

Increasingly, community and technical colleges in America are being requested to provide some degree of accountability to governing bodies and their committees. As the roles of community and technical colleges have become more centrally important in the context of a rapidly changing society, there has been an understandable demand for these schools to provide their various publics with information regarding institutional effectiveness. This demand has its clear converse in the educational equation, however. From the point of view of the schools themselves scopes of responsibility have increased while available funds to meet these needs have declined (Losak 1988; Parnell 1988). Community and technical colleges, therefore, are being asked by their communities to better define and position themselves, but also to defend their progress toward that self-definition (Ashcroft 1986). Schools, on the other hand, need to make a case for funding priorities. Clearly, part of the need for systematic efforts to measure institutional effectiveness stem from the necessity of communication between constituent groups and the college.

In addition to these external demands are internal pressures. Community and technical colleges are often on the front lines of change in American postsecondary education. They must variously interpret and respond to challenges involved in equipping the nation's work force to face the demands of a rapidly changing world, both socially and technologically, and they also must provide much of the population access to 4-year colleges and to

professional preparation. Additionally, they must ensure that educational deficiencies in the adult population can be remediated. Further, literacy, adult training/retraining, and technology transfer opportunities are increasingly placed at the door step of local postsecondary institutions.

These issues face every community and technical college. Indeed, effective response in these areas has been their obvious goal. Yet the need has never been greater nor the challenges more consequential. What is clearly required, and is currently lacking, is a mechanism for measuring institutional effectiveness that will be responsive to external constituencies while also providing appropriate and useful feedback to the institution itself (Losak 1988). This need for appropriate assessment of institutional effectiveness has been acknowledged by many, in and out of education. It has also been reflected in the growth of recent reports and research papers addressing these questions.

Prominent among the former set of publications is a document by a task force of the National Governors' Association (Ashcroft 1986). It attempts to address the question of the degree to which "learning" is taking place in postsecondary education, in contrast to the usual reports of courses taken, hours accumulated, and degrees granted. Can colleges and universities, the task force asks, <u>demonstrate</u> that students are both acquiring knowledge and developing abilities to use that knowledge? Although the task force devoted much of its attention to the problems of the 4-year institution, community and technical colleges are by no means exempted from its recommendations. In any case, the report does document the fact that decision makers are increasingly concerned

about the role of institutions of higher education and desire information about it. Given that the composition of the task force is made up of the nation's governors, one can fairly conclude that it represents a clear signal from state authority.

Among the specific recommendations made by the Ashcroft (1986) report is a call for "systematic programs that use multiple measures to assess undergraduate learning. The information gained from assessment should be used to evaluate institutional and program quality. Information about institutional and program quality also should be made available to the public." In short, the Ashcroft Commission is calling for studies of institutional effectiveness to be conducted by colleges and universities nationwide. The report acknowledges obstacles, among which are the variability of institutional missions and the lack of appropriate instruments. Hence, any model of institutional effectiveness would need to address these obstacles in some fashion.

The thrust of the Ashcroft report and its impact is evident in terms of a variety of studies completed after its release. Edwards (1987) urged community colleges to develop research models to assess output, affirm the importance of teaching and learning, reward teaching excellence, and reassess the hierarchy of the educational enterprise. The Southern Regional Education Board (SREB) reported (1987) that traditional measures of institutional effectiveness (e.g., enrollment and degrees awarded) lack meaning, that a "quality gap" exists between institutions of higher learning, and that the effects of "open enrollment" and other equity

considerations have not been effectively measured. SREB offers 24 specific recommendations, many of which pertain to the need to measure institutional effectiveness. The SREB report in many ways reflects a synthesis of both research-based and policy-driven concern about the degree to which colleges and universities are fulfilling their respective missions.

Indeed, the expressions of need for appropriate measures of institutional effectiveness abound, both in formal and informal contexts. But what, in fact, are "appropriate" measures? To some degree, the literature begs the question, but it at least achieves a consensus about what is "inappropriate." The tendency, and perhaps pressure, for an institution to measure only that which it may demonstrate successful achievement is, SREB implies, one obstacle. Further, colleges have traditionally measured enrollment changes as a criterion of effectiveness. However, enrollment variation is subject to many influences, shifts in local economies being one of them. As such, these data only characterize how many persons are registered, not how well they are "learning" (Richardson 1988; Ewell 1988). Finally, Dodson (1987) and Ewell (1985) allege a lack of clarity in the definition and operationalization of quality.

The literature also specifies other considerations relative to institutional effectiveness measurement. Hammons (1987) and Ewell (1985) suggest that the entire area is plagued with a profound lack of leadership and responsibility, among other problems. It is required, therefore, for community and technical colleges to aggressively step forward, demonstrate a capacity for leadership, and confront the quality issue, or someone else may do it for

them, perhaps according to criteria the institutions may find unacceptable. Additionally, although many colleges are in the business of formal measurement in some fashion, there is little apparent agreement about what measures should be considered (McLeod and Carter 1986). Not incidentally, there is some resistance to the hint of a comparison between colleges. Moreover, the institutional research capacities of various colleges differ in part due to time and money allocation conflicts. A final consideration is that few instruments for measurement exist (Hammons 1987), fewer still that measure "appropriate" aspects of the role of community and technical colleges. Obviously, an implicit suggestion called for in the list of "inappropriate" concerns is an exploration of what in fact should be measured.

With this in mind, Richardson (1987) urges a focus on outcomes. Earlier, Richardson (1985) emphasized the importance of quantifiable data in this regard, avoiding body counts, but still providing some relatively objective standard. McClenney and McClenney (1988) argue that measures be made across institutions, regardless of size or location. They suggest that common purposes and issues far outweigh cross-college differences and that measurement should revolve around explicit statements of purpose. Moore (1986) and Ewell (1988) concur, stating that the outcomes to be measured emerge directly from the mission statements that each college develops. Vaughn and Templin (1987) suggest that a "value-added" standard be considered, both in terms of the institution to the student and the institution to the community. Finally, Dodson (1987) suggests that program quality and program access are different and should not be confused. In the context

of institutional effectiveness then, care should be taken to measure each of the items separately, but to indeed include both as each represents one fundamental aspect of the community college mission.

In sum, the literature identifies key considerations in the study of institutional effectiveness in community and technical colleges. Specifically, these include the following:

- Accountability - Community and technical colleges are increasingly responsible to a number of communities, internal as well as external, in terms of their effectiveness. As such, the documentation of effectiveness will be of continuing importance to the survival of the institution as a benchmark of its value to the community.

- Flexibility - Community and technical colleges vary in terms of size, location, and educational orientation. The measurement of effectiveness must not preclude sensitivity to this necessary and valuable aspect of postsecondary instruction.

- Cross-institution relevance - While sensitive to institutional differences, measurement of effectiveness must be capable of addressing the broad issues which transcend variations in institutional purpose. As such, it should include criteria applicable to any community or technical college.

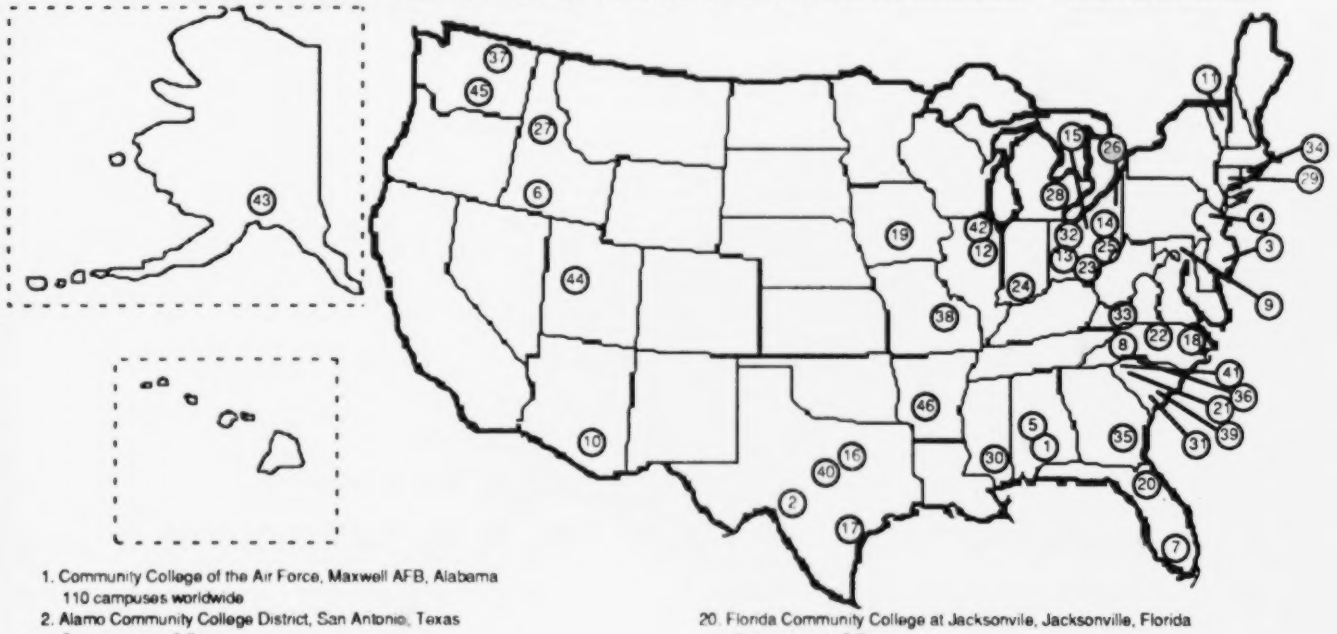
- Measurement standards - Traditional measurement criteria, such as enrollment, are no longer an adequate standard for assessing institutional effectiveness. The literature clearly shows that quality is independent of a school's body count. Further, measurement should be quantifiable and expressible in terms of the stated goals and mission of the institution. This provides not only the maximum relevance to a specific institution but also ensures a more accurate expression of effectiveness when a college can be assessed in terms of the actual goals it is attempting to reach.

- Goal differentiation - American community and technical colleges have a variety of needs and goals. One of these is the requirement to achieve a high standard of student performance. Another is to ensure that a variety of communities enjoy access to the facilities, both educational and noneducational. Insofar as mission statements tend to differentiate these goals, so must an instrument while still subjecting both to appropriate measurement.

BACKGROUND OF NATIONAL ALLIANCE ACTIVITY

In response to this backdrop of research and activity in the area of institutional effectiveness, the National Alliance of Community and Technical Colleges (NACTC) and the National Center for Research in Vocational Education (NCRVE) began an 18-month process to develop a thoughtful and practical model for its measurement. In August 1987, NACTC, composed of 46 member institutions in 25 states (see figure 1), conducted a survey of each college asking for responses to two open-ended questions. First, each institution was asked to provide its view of an appropriate definition of institutional effectiveness. Second, member institutions were asked to identify measurable indicators (both qualitative and quantitative) of institutional effectiveness. Thirty-two colleges responded to the request, listing a variety of definitions of institutional effectiveness and a number of factors presumed to measure it. These ranged from very specific indicators such as "the number of security incidents reported" (on campus) to much more broadly conceived issues, such as "serving the needs of the community." Among general trends from the responses, however, most issues concerned accomplishing mission and goals of the individual college. This represents a significant support from people in the field for the issues identified in the literature.

NATIONAL ALLIANCE OF COMMUNITY AND TECHNICAL COLLEGES - - MEMBERSHIP



1. Community College of the Air Force, Maxwell AFB, Alabama
   110 campuses worldwide
2. Alamo Community College District, San Antonio, Texas
   3 campuses as follows:
   - Palo Alto College
   - St. Philip's College
   - San Antonio College
3. Atlanta Community College, Mays Landing, New Jersey
4. Bergen Community College, Paramus, New Jersey
5. Bessemer State Technical College, Bessemer, Alabama
6. Boise State University, Boise, Idaho
7. Brevard Community College, Cocoa, Florida
8. Catawba Valley Community College, Hickory, North Carolina
9. Catonsville Community College, Catonsville, Maryland
10. Central Arizona College, Coolidge, Arizona
11. Champlain College, Burlington, Vermont
12. City Colleges of Chicago, Chicago, Illinois
    9 campuses as follows:
    - Chicago City-Wide College
    - Dawson Technical Institute
    - Kennedy-King College
    - Loop College
    - Malcolm X College
    - Olive Harvery College
    - Richard J. Daley College
    - Truman College
    - Wilbur Wright College
13. Clark Technical Institute, Springfield, Ohio
14. Columbus State Community College, Columbus, Ohio
15. Cuyahoga Community College District, Cleveland, Ohio
    3 campuses as follows:
    - Eastern Campus
    - Metropolitan Campus
    - Western Campus
16. Dallas County Community College District, Dallas, Texas
    7 campuses as follows:
    - Brookhaven College
    - Cedar Valley College
    - Eastfield College
    - El Centro College
    - Mountain View College
    - North Lake College
    - Richland College
17. Del Mar College, Corpus Christi, Texas
18. Durham Technical Community College, Durham, North Carolina
19. Eastern Iowa Community College District, Davenport, Iowa
    3 campuses as follows:
    - Clinton Community College
    - Muscatine Community College
    - Scott Community College
20. Florida Community College at Jacksonvile, Jacksonville, Florida
    4 campuses as follows:
    - Downtown Campus
    - Fred H. Kent Campus
    - North Campus
    - South Campus
21. Greenville Technical College, Greenville, South Carolina
22. Guilford Technical Community College, Jamestown, North Carolina
23. Hocking Technical College, Nelsonville, Ohio
24. Indiana Vocational Technical College-Wabash Valley Technical Institute, Terre Haute, Indiana
25. Jefferson Technical College, Steubenville, Ohio
26. Lakeland Community College, Mentor, Ohio
27. Lewis Clark State College, Lewiston, Idaho
28. Macomb Community College, Warren, Michigan
29. Manchester Community College, Manchester, Connecticut
30. Mississippi Gulf Coast Community College District, Perkinston, Mississippi
    3 campuses as follows:
    - Jackson Campus
    - Jefferson Davis Campus
    - Perkinston Campus
31. Orangeburg-Calhoun Technical College, Orangeburg, South Carolina
32. Owens Technical College, Toledo, Ohio
33. Patrict Henry Community College, Martinsville, Virginia
34. Community College of Rhode Island, Warkick, Rhode Island
35. Savannah Technical College, Savannah, Georgia
36. Spartanburg Technical College, Spartanburg, South Carolina
37. Community College of Spokane, Spokane, Washington
    2 campuses as follows:
    - Spokane Community College
    - Spokane Falls Community College
38. St. Louis Community College, St. Louis, Missouri
    3 campuses as follows:
    - Florissant Valley
    - Forest Park
    - Meramec
39. Sumter Area Technical College, Sumter, South Carolina
40. Tarrant County Junior College, Fort Worth, Texas
    3 campuses as follows:
    - Notheast
    - Northwest
    - South
41. Tri-County Technical College, Pendleton, South Carolina
42. Triton College, River Grove, Illinois
43. University of Alaska/Anchorage, Anchorage, Alaska
44. Utah Valley Community College, Orem , Utah
45. Walla Walla Community College, Walla Walla, Washington
46. Westark Community College, Fort Smith, Arkansas

FIGURE 1: IDENTIFICATION AND LOCATION OF ALLIANCE MEMBERSHIP

These results were presented to the September 1987 meeting of the Alliance held in Burlington, Vermont. From these data, seven categories of issues were defined and a provisional definition of institutional effectiveness was developed through group discussion. The Alliance members were divided into small groups for the purpose of developing indicators within each of the categories. From this activity, a seven-member Institutional Effectiveness Task Force was appointed to provide editorial consideration to the emerging model and to foster its development from being an idea to becoming a reality. In addition to model design, the task force sought to ensure that the measures involved "outcome" issues rather than process statements. In this regard, a key methodological foundation of the model was initiated. Outcomes, according to Losak (1988), represent a significant departure from the process measures historically employed by accrediting agencies. Through the use of outcome measures, criteria can be formalized, made more rational, and made more "public." Losak argues that "the fate of many institutions has been determined by informal (process) measures." This has not been to the advantage of institutions. By utilizing outcome measures, the standards are clearer and the problems of interpretation are reduced. Hence, not only can reviewing agencies more clearly understand the data, but they also provide some protection for the institution by allowing it to know in advance the criteria on which it will be assessed.

In August 1988, these outcome measures compiled by the task force were refined for subsequent presentation to a meeting of the

entire Alliance membership the following month. Upon consideration by the representatives of the general membership from around the country, and based on their feedback, alterations were made for final presentation. The results of this process are reflected in the presentation of the model in this study.

THE ALLIANCE MODEL OF INSTITUTIONAL EFFECTIVENESS

The model of institutional effectiveness begins with a definition of the topic. According to the membership of NACTC, the "institutional effectiveness (of community and technical colleges) is achieved by the articulation and measurement of the mission of a college, defining how the college and the community will know when the goals are being met and by utilizing the data from such assessment in an on-going cycle of goal setting and planning." Institutional effectiveness, therefore, is a dynamic process, its development driven by and responsive to its own measurement. It is presented graphically in figure 2.

The mission statement generates the definition of specific institutional goals that must be interpretable in terms of specific indicators. These indicators, when measured, yield data about the effectiveness of the realization of the goal. Effectiveness can, therefore, be improved and internal comparability established. This permits an interpretation of the progress of the institution in performing better in terms of the goal over time, the only genuine measure of effectiveness. Alternatively, goals can be changed as a result of the data, yielding new indicators. As well, mission statements can be revised as goals

Figure 2. The model of institutional effectiveness

become realized or in order to constitute them in greater conformity with reality. Utilizing the model as constructed, the individual college can have a useful tool for self-assessment and an accurate statement as to its effectiveness, providing an adequate opportunity for both flexibility and relatively objective measurement.

THE MEASUREMENT OF INSTITUTIONAL EFFECTIVENESS ACROSS COLLEGES

The Alliance Task Force began its work through the use of the DACUM ("Developing A Curriculum") process, as described by Sinnett (1974). DACUM is a "panel-of-experts" style methodology in which participants analyze issues or topics related to a problem in a systematic fashion and then detail the components of an issue by group consensus. The components are then formulated as functions of the topic and are developed into a chart portraying the relationships between topics and their related components.

Through the use of DACUM, the task force identified six areas of inquiry that they believed to be generic to the mission of community and technical colleges in America. Although it is acknowledged in advance that an individual college may have additional scopes of responsibility beyond those cited in response to its obligations to its service area, the Alliance maintains that these six areas are particularly crucial elements to the delivery of both postsecondary education and the opportunity for colleges to contribute to the quality of life of their respective communities. As such, institutional effectiveness should involve at least these topics. However, the model, as previously stated, does allow for modifications to be made. In most cases, the following issues must be dealt with for any college to meet its challenges and consider itself effective. They can be identified and described as follows:

A. Access and equity - Community and technical colleges have as a basic responsibility the need to assure all citizens of their communities the availability of postsecondary education services, regardless of their backgrounds or

needs for special assistance. It is, therefore, the responsibility of the college to make necessary provisions for students and to provide those services and elements of access that would make such opportunity realistic for prospective students.

B. Employment preparation and placement - Central to the purposes of community and technical colleges is the preparation of the work force of the future, and, increasingly, the retraining of workers for the present. Of importance in this regard is the degree of economic and vocational interface between the college and the community, with special emphasis on the dimensions and needs of the local labor market.

C. College/university transfer - Traditionally, the role of the community college has been to provide its students with the ability to make an effective transition to four-year colleges and universities. Despite great changes in the roles of 2-year colleges in recent years, these institutions still retain a major responsibility in this area. Effectiveness as a college still depends, then, on quality outcomes in assisting its students to achieve a baccalaureate degree.

D. Economic development - Among the areas of great contribution a community or technical college can make is in its role as an asset to the economic development interests of the community it serves. Indeed, in a rapidly changing economy driven by job growth, plant relocation, and technological transformations, communities have found it both necessary and prudent to aggressively seek new business and industry. It is in this regard that community and technical colleges can "add value" to a community, by assuring the prominence, access, and relevance of postsecondary education to the community and by providing a prospective employer who is considering entry into the local labor market with a confident view of the ability of a community to provide appropriately trained workers for both present and future needs.

E. College/community partnerships - Another "value-added" dimension to the mission of community and technical colleges is the the degree of interface the college and the community experience in a variety of areas, including community use of college facilities, knowledge about the availability of college services, and the degree of participation of both students and faculty in the community and community members in the college. It is the contention of the Alliance that these outcomes are measurable and central to a college's mission.

F. Cultural and cross-cultural development - Inherent in the access and equity responsibilities of a college is the

> incorporation of a wide variety of persons of various racial, ethnic, religious, and other social groups seeking education and/or training. This presents an opportunity, even a responsibility, for the college to serve as a catalyst for cross-cultural awareness and sharing. Equally, it is the case in many communities that the college serves as a major community resource for awareness of and participation in the arts, educational media, and other vehicles of communication and recreation. Effective community participation includes "adding value" to the community. Additionally, the interdependence of local, national, and international labor markets create a very practical consideration in the assessment of the degree of cultural involvement. Although the specific activities of colleges across the country may vary in terms of service delivery of these two related areas, all institutions of higher learning share a responsibility to provide the community and its students with such resources and opportunities.

Given the descriptions of the measurement areas, the Alliance considered appropriate outcome measures for each topic. To do so, it turned to the research in each point of focus, the volume of which attests to the appropriateness of the areas identified. These bodies of literature will be summarized in order to link the work of the Alliance with the state-of-the-art knowledge. There is no presumption that such a review is comprehensive. Indeed, the relevant bodies of literature are growing so quickly as to lend doubt as to whether any review could be comprehensive. It will, however, cite the most relevant studies and be indicative of the substance on which the efforts of the Alliance are based.

THE SUBSTANTIVE BASIS FOR ALLIANCE TOPIC CATEGORIZATION: DEVELOPMENT OF THE INSTRUMENT

The literature in each area substantiates the basis of the Alliance's work to date and develops logically into the generation of a set of indicators, presented after each topic is reviewed. Taken together, the indicators create an instrument that can be used to measure institutional effectiveness. The instrument presupposes some form of ongoing data collection activity on the part of community and technical colleges, and the indicators attempt to make use of these data in order to enable ease of computation and the efficiency of instrument use. Should components of these calculations not be in current use, colleges are urged to begin such record keeping in order to utilize fully the work of the Alliance. With these considerations, each topic will be considered independently.

Access and Equity

As previously discussed, the existence of a "people's college" implies a commitment to provide service to enable all community members an opportunity to meet their educational purposes. As Mueller (1988) points out, a number of groups (e.g., minorities, displaced homemakers, learning disabled, physically challenged, refugee populations, and limited English-speaking persons) "have found community colleges willing to help them pursue the dream of higher education." Although the commitment to the "open door" has been consistently under attack and the performance of community colleges variable in this regard (Orfield and Paul 1988; Roueche, et al. 1987; Wilson 1986), colleges involved in access

and equity goals remain committed to this fundamental principal, if for no other reason than that than that the workplace of the future will demand greatly increased skill levels in previously underserved populations (Johnston 1987). Moreover, our national commitment to a democratized workplace and school system demand efforts to remediate skill levels and incorporate the participation of those seeking improved qualities of life (Vaughn 1985a; 1985b; American Association of Community and Technical Colleges 1987). A clear indication of this commitment can be found in federal legislation, such as the Carl D. Perkins Vocational Education Act (National Coalition for Women and Girls in Education 1988).

Specifically, indicators of access and equity would necessitate the inclusion of the following:

- The representation of all significant service area populations in the student/faculty mix (Mueller 1988; Orfield and Paul 1988; Palmer 1986)
- The adequacy of articulation in transfer procedures and nontraditional credit arrangements (AACJC 1987; O'Shea 1986)
- Support for students requiring extracollegiate services to remain in school (Cohen 1985; Hartman 1986; Breland, et al. 1986)
- The relationship of the college to disadvantaged/at-risk populations (Murray 1985; Gittell 1985)
- The relationship of tuition and fees to student resources (Manning 1986; Hansen 1987)

Given these premises, the Alliance defined 11 criteria that indicate areas of concern to community and technical colleges in America with respect to access and equity goals. They include the following:

1. The percentage of the high school graduates in the service area that are enrolled in the college.
2. The percentage of transfer credits submitted by incoming students that are accepted by the college.
3. The percentage of students requesting credit for non-traditional learning (e.g., life experience) that receive it.
4. The degree to which the student body reflects the adult age mix of the population of the service area.
5. The composition of the faculty/staff/administration as a reflection of the population mix of the student body.
6. The percentage to which the student population <u>over-represents</u> the disadvantaged and at risk composition of the population of the service area.
7. The percentage of disadvantaged and at risk students who attain their educational goals.
8. The percentage of all students who attain their personal goals.
9. The percentage of students needing services (e.g., child care, transportation, housing) to overcome barriers that are assisted by the college in obtaining such services.
10. The degree to which increases of student tuition and fees are less than equal to the rate of growth in personal income in the service area.
11. The extent to which the enrollment of the college (both credit and noncredit students, unduplicated) per 1,000 service area inhabitants is greater to or equal to that of the previous year's student body.

<u>Employment Preparation and Placement</u>

Although there are certainly expressive educational needs to which postsecondary education can address itself, its principal instrumental function is in the area of employment preparation and

placement. This responsibility varies from entry-level occupational preparation to retraining services to older, employed students (Seybert 1988). As the literature in the area is so pervasive and the mission a very traditional one, no point by point defense of the Alliance criteria on this topic is deemed necessary. As such, the Alliance saw the role of community and technical colleges to concern several key issues:

- Work force availability among college training program completers
- Employer satisfaction with former students on the job
- Employee satisfaction with the training received
- Student competency in general education areas as well as skills in specific area of training

Operationally, the following indicators obtain:

1. The percentage of program completers available for employment who obtain jobs related to that field of study within a given period of time.
2. The percentage of program completers who pass required licensure/certification exams of those who take them.
3. The percentage of employers who express satisfaction with the technical competence of program completers.
4. The percentage of employers who express satisfaction with the nontechnical competence of program completers (e.g., employability skills, work attitudes, communication skills, human relations skills).
5. The percentage of program completers who express satisfaction with the extent to which their technical education has prepared them for work.
6. The percentage of workers who express satisfaction with the extent to which their nontechnical education prepared them for their jobs.
7. The percentage of program completers who demonstrate satisfactory attainment of general education goals.

College/University Transfer

As is the case with employment preparation, the transfer dimension to the mission of community and technical colleges is implicit in their very existence. Although it is true, as Carroll (1988) points out, that the individual needs of young vs. older adults and liberal arts vs. students seeking advanced technological training are divergent, the goal of those seeking transfer is, indeed, to utilize the community college experience as a basis for successful entry into a 4-year college. For measurement purposes, therefore, these divergent curricular issues can be treated similarly.

Expressed as core issues, the transfer mission of community and technical college's concerns:

- o The degree to which students succeed in transferring
- o The degree to which community college credits transfer successfully
- o The comparison of community college students with the balance of the 4-year college enrollment in terms of performance.

Accordingly, the following 5 indicators emerge as appropriate measures of the effectiveness of the college's transfer mission:

1. The percentage of students intending to transfer who do transfer
2. The percentage of credits and/or associate degrees gained at the 2-year college that are accepted by senior institutions
3. The percentage of grade point averages of former community college students that are equal to or greater than the 4-year college's native students by the second term after transfer

4. The percentage of transfer students who demonstrate general education competencies that are equal to or greater than those delivered in the first 2 years of a 4-year program

5. The percentage of transfer students who attain a bachelor's degree

Economic Development

In contrast to the traditional missions of the community colleges involving transfer and employment preparation, one of the new and exciting aspects of the community college agenda concerns its impact and effectiveness in the economic development efforts of the community. As an example, the entire community and technical college system of North Carolina was developed principally to serve the economic development needs of this emerging sun belt state in changing economic times (MDC 1988). Further, there is evidence that community and technical colleges have been called upon in localities to respond to times of economic hardship in a fashion that other educational entities, for a variety of reasons, could not (Kapfer 1988; AACJC 1986). Clearly, America's community and technical colleges have an opportunity to play a key role in the economies of their service areas, both in terms of attracting business and industry and also in maintaining it once it is located in the community. Involved in the success of a community college in meeting this challenge are such things as the following:

- The capacity for training and retraining it maintains in partnership with local industry (Charner and Gold 1987; Scott 1987)
- Its contribution toward an educated population in its service area (Weiss and Bryden 1987; Zeiss 1986)

- Its ability to offer customized training, technology transfer, and entrepreneurial services (Currin and Sullins 1986; Borquist 1986; Israel and Custer 1986; Kapfer 1988)

- Its demonstrable impact on employment and job growth (Landrum, et al. 1985; Edge and McDonald 1986)

In terms of specific indicators, the Alliance membership identified eight key indicators of effectiveness with respect to economic development.

1. The percentage of the adult population of the service area which has achieved associate degrees from the institution

2. The percentage of displaced or unemployed workers enrolled in regular or customized training

3. The percentage of displaced or unemployed workers who have completed regular or customized training who are now in appropriate employment

4. The percentage of students (credit and noncredit) entering customized training programs for new, expanding, and retooling industries who are subsequently employed or retained by contracting employers

5. The number of requests made for information and problem-solving services, such as technology transfer, resulting in cost-savings, new or improved products or techniques, or client satisfaction

6. The percentage of the annual labor market needs of the area met by credit/noncredit program completers

7. The number of jobs created or retained in the service area as a result of the college's work with employers

8. The percentage of persons in the service area who use educational services related to small business to either start, improve, or expand a business

College/Community Partnerships

It is beyond question that economic development activities are one kind of partnership that engages both the college and community. There are, however, many others, and they will vary

across colleges and locations. They are as diverse as cooperative strategic planning activities (Mecca and Morrisson 1987; Nunley 1987), cooperative involvement in community service activities (Shumer 1987; Moss 1986), promotion of local art and culture (Albright 1986; Sommers and Ellis 1985), and joint responsibility for addressing local social issues (Counihan and Steele 1985).

In spite of variability between colleges, all institutions have some opportunity to engage in cooperative ventures. These entities have facilities, libraries, expertise, and capacities unique in many, perhaps most, communities around the nation. In recognition of this, the Alliance has identified four indicators of college/community partnerships with which individual schools may apply their own focus of attention. They include:

1. The percentage of requests by individuals and/or public and private sector groups for college services which are met.

2. The percentage of individuals and/or public and private sector groups who report satisfaction from using college services.

3. The percentage of the population of the service area that uses the educational resources of the college, such as the library, college-sponsored presentations, and facilities.

4. The percentage of faculty, staff, students, and program completers who participate in community organizations.

Cultural and Cross-Cultural Development

Among the unique opportunities that community and technical colleges have is the presence of a variety of individuals, groups, and life-styles on campus. Each of these groups has a cultural history or tradition that can be shared, both with others on

campus and with the community. As well, the college campus is often the focus of activity for the entire community, the source of artistic awareness and the medium of cultural transmission. Beyond that, the community college is also the focal point for information about a world which is increasingly interdependent.

The literature makes considerable reference to this characteristic of the college, but examining the research identifies a far different additional dimension to its purpose beyond mere cultural awareness. It identifies the relevance of the college's role in job training across cultures (Stevenson 1986; Peniche 1985), the incorporation of influences from other cultures into the American mainstream (Venditti and Bahruth 1987; Harvey and Cap 1987; Hites and Casterline 1986), and the multiplicity of perspectives on education from persons with varying cultural backgrounds (Darity 1985). In short, the mission of the community and technical college with regard to cultural and cross-cultural development is not simply to serve the aesthetic interests of the community nor to minimize cultural conflicts between social groups. Indeed, there are important pragmatic aspects of cross-cultural sharing which, when understood, become central to the overriding purpose of the institution. As such, participation in these aspects of college life hold consequences beyond the expressive value of the events themselves.

The Alliance membership have identified three key indicators of cultural and cross-cultural development that are measurable impacts of the community college:

1. The percentage of credit students who participate in cultural and cross-cultural activities

2. The percentage of faculty/staff who participate in cultural and cross-cultural activities

3. The percentage of the adult population of the service area who participate in the cultural and cross-cultural activities of the college

Taken together, these six topic areas and respective indicators provide a foundation for the assessment of institutional effectiveness of America's community and technical colleges. So constructed, it constitutes an instrument available for use by virtually any postsecondary entity. Each institution will have the responsibility of identifying and adapting the instrument for its own use. However, such an instrument does offer colleges an opportunity to utilize data which are, for the most part, already being collected to a manner of presentation most beneficial to themselves. It is also capable of providing those outside the campus community with an accurate and comprehensive picture of the college's impact in its service area. As such, compilation of these data should not be viewed as simply a bureaucratic requirement or an invitation to intervention by governing bodies. It is instead a chance for community and technical colleges to make their best and most relevant case to external interests while serving as an accurate self-portrait for their own uses.

USING THE INSTRUMENT

The 6 areas have yielded 38 indicators that are subsumed under their appropriate heading. This creates a chart (see the appendix) that shows major categories and specific indicators which, as a whole, comprise the assessment data that support the mission statements of most colleges. In other words, these indicators are a more precise way of expressing the mission and goals of community colleges, thus serving as a model for defining institutional effectiveness.

These indicators are outcome measures rather than an evaluation of resources and/or processes. The indicators are not meant to stand alone, but rather held in the context of the college's mission and goals.

A college may use this chart by first comparing its own mission and goal statements with the indicators on this chart. Some colleges may have more or less comprehensive missions that may necessitate adding or subtracting a number of indicators on the instrument. Generally, it is believed that most colleges will be involved in adding indicators and areas, as the six topics and their respective indicators have a high probability of relevance to most individual colleges. It is, however, at the college's option to adapt this chart to its own use.

Following the adaptation of the chart, institutions should then determine realistic percentage measures appropriate to their mission and consistent with the college's set of baseline data. In cases where appropriate baseline data are not available, the

college is encouraged to develop them in accordance with the model if this is a practical consideration.

Once the college determines which indicators are appropriate and what percentages are realistic, the college is ready to build an assessment package. The first step is to identify the measurement tools already in place and then to develop a plan to locate or create the tools that are necessary to make the individual adaptation of the model useful.

An increasing number of community and technical colleges are already involved in institutional effectiveness. Part II of this study provides examples of how Alliance member colleges are currently measuring the six topic areas developed by this model.

SUMMARY

The work of the National Alliance of Community and Technical Colleges in conjunction with the National Center for Research in Vocational Education at The Ohio State University has created a model and instrument for the measurement of the institutional effectiveness of community and technical colleges in America. They have focused on developing the model such that the mission and goals of community colleges are expressed, having relevance across colleges, regardless of their size or location. Further, the model has emphasized measureable outcomes from which quantifiable data may emerge. These data, in turn, refer back to the goals of the college and provide an indication of the extent to which the college is achieving them. If desired, these data also offer the college the opportunity to alter the goals such that they can be better measured, or alternatively, change the mission of the college to better serve the community in which it resides.

Constructed as such, the model provides the requisite accountability and flexibility, as defined earlier. It establishes (or provides the basis for) measurement standards based on outcomes and also appropriate goal differentiation. Of key importance is the cross-institutional relevance of the model, established through the identification of six key topic areas with which all institutions at some level must deal. They are access and equity; employment preparation and placement; college/university transfer; economic development; college/community partnerships; and cultural and cross-cultural development. With these

6 topic areas 38 individual indicators were generated. These areas and indicators are consolidated on a chart which demonstrates the relationship of indicators and areas of inquiry.

It is acknowledged that individual institutions will have to adapt the instrument to its own uses. However, it is also suggested that the attempt be made to adjust rather than eliminate topics and indicators.

Institutional effectiveness will become increasingly important, both in response to a changing American society and international scene, and also as community and technical colleges become increasingly important to the nation and its communities.

Through the consideration of institutional effectiveness, it is clearly no mistake that a recent publication about the emerging role of community colleges is titled Building Communities (Parnell 1988). In a very real sense, institutional effectiveness, properly conceived, is precisely the college's involvement in the building of effective communities. The model and instrument which have been developed have been designed to assist institutions in measuring themselves against its fundamental mission, the goal of growing ever closer to the realization of the term "the people's colleges."

The National Alliance for Community and Technical Colleges has been a leader in the field for two decades. As it maintains its investment in the area of institutional effectiveness, it will maintain its leadership and continue to contribute in ways most necessary for its member institutions. In so doing, it will continue to establish a standard of excellence for community and technical colleges in the United States.

PART II

EXAMPLES FROM THE ALLIANCE MEMBERSHIP

INTRODUCTION

Part II of this report features the current activity of members of the National Alliance of Community and Technical Colleges in measuring institutional effectiveness. Although Alliance members did not have the benefit of this report to construct specific measures along the lines suggested in the study, all of the member institutions that provided examples of survey forms currently in use collect data that bear considerable relevance to the model previously developed. As a consequence, a fundamental premise of the report, that American community and technical colleges already gather much of the data needed to assess institutional effectiveness, receives substantial endorsement. Much of the model, therefore, can be implemented by a college by simply utilizing and reconfiguring data being collected as a matter of course.

Sample instruments were requested of Alliance member institutions during the fall of 1988. Ten campuses responded to the request. They are as follows:

- Guilford Technical Community College (North Carolina)
- Manchester Community College (Connecticut)
- Columbus State Community College (Ohio)
- Orangeburg-Calhoun Technical College (South Carolina)
- Mississippi Gulf Coast College (Mississippi)
- Eastern Iowa Community College District (Iowa)
- Walla Walla Community College (Washington)
- City Colleges of Chicago (Illinois)

- Clark State College (Ohio)
- Spartanburg Technical College (South Carolina)

As constituted, the sample provides a reasonable representation of both the Alliance membership and various types of colleges across the country. Although the depth and coverage of the survey instruments vary, all contain some aspects of the indicators mentioned. Sample items currently being used which measure the topics and/or instruments will be discussed for each area of the model. It should be noted that the lack of a specific instrument to collect such data does not indicate that appropriate information is not being kept. Instead, it is only to be interpreted that a specific instrument to do so was not submitted and, in all likelihood, is recorded through computerized enrollment, etc.

It also should be noted that the measures submitted took a variety of forms. In some cases, specific survey instruments were contributed. In other cases, raw or previously analyzed data were provided, indicating that a particular measurement had been made. In still others, a goal to measure or a stated intention to measure was all that was indicated. At times, only "process," instead of "outcome" items were used. In many submissions, no mention of the particular topic was made at all. As such, the authors took some liberties of inference and attempted to state a measure in more or less mutually compatible form. However, if a specific item referred to "program completers" as opposed to graduates, that terminology was used.

Due to the preceding discussion of the limitations of the measures reported, one is to be cautioned about drawing conclusions about the items, either about the how the concept is being measured or about the institution. Instead, the following is a compendium of measures provide by the individual campuses that will share the variety of ideas that exist about how to assess quality and also may give some insight on the particular priorities in various colleges across the country. With this in mind, the topics and respective modalities of measurement are presented.

A. ACCESS AND EQUITY

1. Mississippi Gulf Coast
   a. Demographic (age, race, sex, etc.) analysis of graduates
   b. Residence status of graduates
   c. Attainment of educational goals
   d. Total enrollment by program

2. Orangeburg-Calhoun
   a. Attainment of educational goals
   b. Entrance standards by social group
   c. Demographic analyses of student body
   d. Evaluation of recruitment policies
   e. Census data comparisons

3. Manchester
   a. Attainment of educational goals by graduates
   b. Demographic analysis of graduates
   c. Special needs analyses of graduates
   d. Transfer credit status

4. Guilford
   a. Transfer credit status
   b. Demographic analyses of graduates

5. Spartansburg
   a. Reasons for college attendance by minority students
   b. Demographic analysis of student body
   c. Transfer credit status of minorities/entrants
   d. Special needs/disability statuses of minorities/entrants

6. Clark State
   a. Percentage of high school graduates in service area attending college
   b. Status of minorities in service area (demographics, income, etc.)
   c. Percentage of minority enrollment at Clark vs. other Ohio schools
   d. Age data of student body vs. service area
   e. University acceptance of college credits
   f. The number of minority persons on faculty and staff
   g. Retention as a function of stated goals for attendance
   h. Change in participation rate in higher education in service area

7. Chicago
   a. Demographic analysis of graduates
   b. Transferability of college courses

8. Walla Walla
   a. Demographic analyses of entrants
   b. Transfer credit status
   c. Attainment of educational goals by program completers

9. Columbus State
   a. Demographic analyses of graduates
   b. Transferability of college credits

10. Eastern Iowa
   a. Demographic analyses of graduates by campus
   b. Income of former students
   c. Ease of transfer of credits to students currently enrolled

B. EMPLOYMENT PREPARATION AND PLACEMENT

1. Mississippi Gulf Coast
   a. Adequacy of student preparation through college experience
   b. Employment status
   c. Employer status
   d. Employer satisfaction with placement
   e. Employer suggestions for improvement

2. Orangeburg-Calhoun
   a. Adequacy of student preparation
   b. Employment status
   c. Quality of placement services of college
   d. Employer satisfaction with placement
   e. Student satisfaction with general education outcomes

3. Manchester
   a. Graduate employment status
   b. Degree of college assistance with placement
   c. Satisfaction with skills gained by graduates
   d. Contribution of technical and non-technical coursework
   e. Improvement in salary levels as a consequence of college experience
   f. Impact of college experience on job, family, and other goals

4. Guilford
   a. Employment status of graduates
   b. Relationship of job to college coursework
   c. Satisfaction with value of college experience to job
   d. Satisfaction with college assistance in placement
   e. Contribution of technical and non-technical coursework

5. Spartansburg
   a. Employment status of graduates
   b. Relationship of job to college coursework
   c. Satisfaction with college assistance in placement

6. Clark State
   No measures reported

7. Chicago
   a. Employment status of program completers
   b. Relationship of job to coursework
   c. Job histories of program completers
   d. Satisfaction with colleges services to placement

8. Walla Walla
   a. Provision of colleges services for placement of program completers
   b. Employment status of program completers
   c. Employer satisfaction with placements
   d. Employer suggestions for college improvement

9. Columbus State
   a. Employment status of graduates
   b. Impact of college experience on preparation
   c. Impact of technical and non-technical coursework on job preparation
   d. Longitudinal follow-up of graduates
   e. Employer satisfaction with placements

10. Eastern Iowa
   a. Employment status of graduates
   b. Impact of coursework on job preparation
   c. Satisfaction with placement services
   d. Employer satisfaction with placement
   e. Recommendations of employers for program improvement

C. COLLEGE/UNIVERSITY TRANSFER

1. Mississippi Gulf Coast
   a. Quality of transfer preparation
   b. Ease of transfer
   c. Relevance of transferable courses

2. Orangeburg-Calhoun
   a. Number of graduates who continue education
   b. Quality of college services for transfer

3. Manchester
   a. Transferability of liberal arts course vs. general and vocational course
   b. Follow-up of students transferring to 4-year institution
   c. Relationship of college courses to university program
   d. Percent of credits accepted by university by program entered
   e. Follow-up of university transcripts of graduates

4. Guilford
   a. Number of graduates accepted by state universities
   b. Relationship of college g.p.a. to university g.p.a.
   c. Relationship of college studies to university studies

5. Spartansburg
   a. Intention of students to transfer

6. Clark State
   a. Number of students who successfully transfer to local universities
   b. Number of articulation agreements in place

7. Chicago
   a. Transferability of college courses
   b. Ease of transfer
   c. Quality of college assistance with transfer

8. Walla Walla
   a. Satisfaction with transfer to university
   b. Ease of transfer
   c. Contribution of college coursework to academic career

9. Columbus State
   a. Educational follow-up of graduates
   b. Satisfaction with transferability of technical and non-technical coursework
   c. University location of graduates
   d. Longitudinal follow-up of educational outcomes

10. Eastern Iowa
    a. Relationship of college major to university major
    b. Relationship of college services to educational outcomes
    c. Satisfaction with college transfer services
    d. University location of graduates
    e. Satisfaction with quality of instruction in field

D. ECONOMIC DEVELOPMENT

1. Mississippi Gulf Coast
   No measures reported

2. Orangeburg-Calhoun
   a. Survey of business needs
   b. Market research activities

3. Manchester
   No measures reported

4. Guilford
   a. Number of unemployed/displaced workers in community
   b. Number of trainees in customized programs
   c. Number of trainees from contracting employers
   d. Number of persons removed from public assistance through college programs
   e. Number of businesses relocated to area
   f. Definition of labor market needs
   g. Survey of college effectiveness in fulfilling labor market needs
   h. Relationship of occupational programs and course with community development plans
   i. Survey of business satisfaction with college programs
   j. Survey of graduate entrepreneurial activities
   k. Measure degree recipients as a function of community size

5. Spartansburg
   No measures reported

6. Clark State
   No measures reported

7. Chicago
   No measures reported

8. Walla Walla
   a. Number of tailored programs for business
   b. Number of special training for health care personnel

9. Columbus State
   No measures reported

10. Eastern Iowa
    No measures reported

E. COLLEGE/COMMUNITY PARTNERSHIPS

1. Mississippi Gulf Coast
   a. Incorporate community members in program planning

2. Orangeburg-Calhoun
   a. Number of FTE contact hours with community
   b. Number of FTE hours of college personnel in community service

3. Manchester
   a. Percent of population of service area use of facilities
   b. Number of nonstudents borrowing from libraries
   c. Number of items borrowed from library

4. Guilford
   No measures reported

5. Spartansburg
   No measures reported

6. Clark State
   No measures reported

7. Chicago
   No measures reported

8. Walla Walla
   a. Number of noncredit classes for community members
   b. Number of teleconference activities for community members
   c. Number of noncredit courses offered for community members
   d. Number of community members who take non-credit courses

9. Columbus State
   No measures reported

10. Eastern Iowa
    No measures reported

F. CULTURAL AND CROSS-CULTURAL DEVELOPMENT

1. Mississippi Gulf Coast
   No measures reported

2. Orangeburg-Calhoun
   No measures reported

3. Manchester
   a. Number of tickets sold for program center performances
   b. Survey of beginning students related to cultural development
   c. Number of students participating in student activities
   d. Number of faculty participating in cultural activities
   e. Survey of staff related to cultural development
   f. Number of adult community members participating in campus activities
   g. Rates of change in student/faculty participation in events

4. Guilford
   No measures reported

5. Spartansburg
   No measures reported

6. Clark State
   No measures reported

7. Chicago
   No measures reported

8. Columbus State
   No measures reported

9. Walla Walla
   No measures reported

10. Eastern Iowa
    No measures reported

APPENDIXES

Institutional Effectiveness Indicators

prepared by the National Alliance of Community and Technical Colleges

Institutional Effectiveness is articulating the mission of the college, setting goals, defining how the college and the community will know when the goals are being met, and using the data from assessment in an ongoing cycle of goal-setting and planning.

A. Access and Equity	A-1 X% of each year's high school graduates in the service area are enrolled.	A-2 X% of transfer credits submitted for evaluation by incoming students are accepted.	A-3 X% of students requesting credit for non-traditional learning receive credit.	A-4 The student body reflects the adult age mix of the population of the service area.	A-5 The composition of the faculty/staff/ administration reflects the population mix of the student body and/or the service area	A-6 The student population overrepresents by X% the disadvantaged/at-risk composition of the population of the service area.	A-7 X% of the disadvantaged/at-risk students attain their educational goals.	A-8 X% of students enrolled attain their educational goals.	A-9 X% of students needing services (such as child care, transportation, housing, etc.) to overcome barriers to college attendance are assisted by the college in obtaining such services.	A-10 The rate of increase in student tuition and fees is less than or equal to the rate of growth in personal income in the service area.	A-11 Each year the enrollment (credit and non-credit unduplicated headcount) per 1000 inhabitants of the area is greater than or equal to that of the previous year.
B. Employment Preparation and Placement	B-1 X% of program completers available for employment obtain jobs related to field of study within X period of time.	B-2 X% of program completers pass required licensure/ certificate exams.	B-3 X% of employers are satisfied with the technical competence of program completers.	B-4 X% of employers are satisfied with the nontechnical competence of program completers (e.g., employability skills, work attitude, communication skills, human relations skills.)		B-5 X% of program completers are satisfied with the extent to which their technical education prepared them for work.	B-6 X% of program completers are satisfied with the extent to which their nontechnical education prepared them for their jobs.	B-7 X% of program completers demonstrate satisfactory attainment of general education outcomes.			
C. College/University Transfer	C-1 X% of students intending to transfer do transfer.	C-2 The associate degree and/or X% of two-year college credits designed for transfer are accepted by senior institutions.	C-3 Grade point averages are equal to or greater than those of the four-year college's native students by the second term after transfer.	C-4 Transfer students demonstrate general education competencies related to intended major that are equal to or greater than those delivered within the first two years of a four-year program.		C-5 X% of transfer students attain a bachelor's degree.					
D. Economic Development	D-1 X% of service area adult population have earned associate degrees from the institution.	D-2 X% of displaced and unemployed workers are enrolled in regular or customized training.	D-3 % of displaced and unemployed workers who completed regular or customized training are placed in jobs.	D-4 X% of students (credit/non-credit) entering customized training programs for new, expanding, and retooling industries are subsequently employed or retained by contracting employers.		D-5 X% of requests made for information and problem-solving services, such as technology transfer, result in cost-saving, new, or improved products or techniques, or client satisfaction.		D-6 X% of the annual labor market needs of the area are met by credit/non-credit program completers.	D-7 X jobs were created or retained in the service area as a result of the college's work with employers.	D-8 X% of persons who use educational services related to small businesses either start, improve, or expand their business.	
E. College/ Community Partnerships	E-1 X% of requests by individuals and/or public and private sector groups for college service are being met.	E-2 X% of individuals and/or public and private sector groups receiving college services are satisfied.	E-3 X% of the population of the service area uses the educational resources of the college, such as library, college-sponsored presentations, and facilities.		E-4 X% of faculty, staff, students and completers participate in community organizations.						
F. Cultural and Cross-Cultural Development	F-1 X% of credit students participate in the cultural and cross-cultural activities of the college	F-2 X% of faculty/staff participates in the cultural and cross-cultural activities of the college	F-3 X% of the adult population of the service area participates in the cultural and cross-cultural activities of the college								

Institutional Effectiveness Indicators

prepared by the National Alliance of Community and Technical Colleges

Project Facilitator: Dr. Mary Ellen Duncan, Dean of Planning and Development, Catonsville Community College.

Institutional Effectiveness Task Force: Dr. Luene H. Corwin, Dean of Academic Affairs, Manchester Community College; Dr. Don W. Cameron, Executive Vice President, Guilford Technical Community College; Dr. Judy Maxson, Dean for Technical Education, Hocking Technical College; Dr. William Miller, Executive Assistant to the President, Columbus State Community College; Ms. Catherine P. Warmbrod, Warmbrod Educational Services; Dr. Don P. Altieri, Assistant to the President for Administrative Affairs, Catawba Valley Technical College, and Dr. Mary Ellen Duncan, Dean of Planning and Development, Catonsville Community College (chairperson).

Technical Assistance: Dr. Mark Newton, Dr. Gary Grossman, Dr. Lauri Miguel at the National Center for Research in Vocational Education, Ohio State University; Dr. Robbie Lee Needham, Advance, Inc.

Acknowledgements: All members of the National Alliance of Community and Technical Colleges.

Using the Chart

This chart shows the major categories and specific indicators which, as a whole, comprise the assessment data that support the mission statements of most colleges. In other words, these indicators are a more precise way of expressing the mission of the community college, thus serving as a model for defining institutional effectiveness.

The indicators are outcome measures, rather than evaluators of resources and/or processes. The indicators are not meant to stand alone but in the context of the college's mission and goals.

A college may use this chart by first comparing its own mission and goal statements with the indicators listed. Depending on the degree of comprehensiveness of a college's mission, indicators items that are beyond the current mission may be blacked out. If there are no indicators to match certain aspects of the mission and goals, they should be added.

An institution should then determine realistic percentage measures appropriate to its mission and consistent with the college's baseline data.

After determining which indicators are appropriate and what percentages are realistic, the college is ready to build an assessment package. The first step is to identify the measurement tools already being used at the college and then to develop a plan to locate or develop the missing tools.

How the Chart Was Developed

National Alliance members participated in an 18-month process of developing, validating, and revising the chart. The DACUM format was chosen to lead the group to focus on outcomes. The first step was to define "institutional effectiveness" and to list measures, which were then grouped in broad categories.

An Institutional Effectiveness Task Force was formed to edit and refine the group work done at Alliance conferences and to synthesize the results of the survey validating the items on the chart.

The Alliance colleges will work together to locate existing measures and develop new measures so that the chart may serve as a practical resource for institutional effectiveness.

Glossary

Competence is a learning outcome defined by the college by various strategies as, for example, by the DACUM process.

Customized training is training designed specifically for employer needs, both in content and form.

Disadvantaged/at-risk students are students who are physically handicapped, economically disadvantaged, adults in need of training or retraining, single parents or homemakers, the incarcerated, speakers of limited English proficiency, functionally illiterate, emotionally disadvantaged, or learning disabled.

Educational goals are the outcomes the students intend to achieve at the time of registration, including education for a job; completion of the first two years of college; obtaining a certificate, diploma, or degree; etc.

General education courses are courses in the traditional liberal arts, such as the humanities and social sciences.

Native students are students who began their studies at the college or university.

Nontechnical education courses are the related courses taken as part of a technical education program.

Program completers are students who complete certificate, diploma or degree programs or a certain number of credits as defined by the college.

Technology transfer is the transfer of technical information for the purpose of improving manufacturing productivity; technology transfer information is usually accessed through national databases.

GLOSSARY

Competence. A learning outcome defined by the college by various strategies, for example, the DACUM process.

Customized training. Training designed specifically for employer needs,both in content and form.

Disadvantaged/at risk students. Students who are physically handicapped, economically disadvantaged,adults in need of training or retraining, single parents or homemakers, the incarcerated, limited English-proficient speakers, functionally illiterate, emotionally-disadvantaged, or learning disabled.

Educational goals. The outcomes the students intend to achieve at the time of registration, including education for a job, self-interest, the first two years of college, attaining a certificate, diploma or degree, etc.

General education. The courses that are traditional liberal arts courses such as the humanities and social sciences.

Native students. Students who began their studies at the college or university.

Nontechnical education. The related courses taken as part of a technical education program.

Program completers. Students who complete certificate, diploma or degree programs or a certain number of credits as defined by the college.

Technology transfer. The transfer of technical information for the purpose of improving manufacturing productivity; technology transfer information is usually accessed through national databases.

REFERENCES

Albright, Penny. "Agents of Culture in Rural Arizona." Community and Junior College Journal. 56, no. 3 (December-January 1986)

American Alliance of Community and Junior Colleges. "Access, Equity, and Developmental Education in the Community College." Community , Junior, and Technical College Journal. 57, no.6 (June-July 1987)

American Alliance of Community and Junior Colleges. Community Colleges and Economic Development. National Council for Occupational Education Monograph Series, Volume II, Number 3. Washington, DC: AACJC, 1986.

Ashcroft, John. Time for Results: Report of the Task Force on College Quality. Washington, DC: National Governor's Association, 1986.

Borquist, Bruce. "The Community College Approach to Serving Business and Industry." Community Services Catalyst. 16, no.4 (1986)

Breland, Hunter M., Gita Wilder, and Nancy J. Robertson. Demographics, Standards, and Equity: Challenges in College Admissions Policies, Practices, and Procedures. Iowa City, IA: College Entrance Examination Board, 1986.

Carroll, Susan. "The Transfer Mission." Presented at the annual meetings of The League for Innovation in the Community College. Charlotte, North Carolina, July, 1988.

Charner, Ivan, and Gerard G. Gold. "Building Effective Business/ Higher Education Partnerships." Community Services Catalyst. 17, no. 1 (1987)

Cohen, Arthur M. "Student Access and the Collegiate Function in Community Colleges." Higher Education. 14, no.2 (1985)

Counihan, Harold J., and Stephen F. Steele. "The Social Scientists of Anne Arundel." Community and Junior College Journal. 55, no.8 (1985)

Currin, Earl C., and W. Robert Sullins. "The Community College's Role in Economic Development." Community Services Catalyst. 17, no.1 (1987)

Darity, Evangeline C. "Multiethnic Perspectives in Education." Presented at the meetings of the National Association for Women Deans, Administrators, and Counselors. Milwaukee, Wisconsin, April, 1985.

Dodson, Ronald R. "Quality and Accessibility: Are They Mutally Exclusive?" Community College Review. 14, no.4 (1987)

Edge, Barbara, and William J. MacDonald. "Profitable Partnerships: Public-Private Partners in Economic Development." Presented at the Annual Conference of the Council for Advancement and Support of Education. Alexandria Virginia, December 1986.

Edwards, Flora Mancuso. "The Transformation of Undergraduate Education." Community, Junior, and Technical College Journal. 57, no. 3 (1987)

Ewell, Peter T. "Institutional Effectiveness: Issues and Opportunities for Community Colleges." Presented to the annual meetings of the League for Innovation in the Community College. Charlotte, North Carolina. July, 1988.

Ewell, Peter T. The Legislative Role in Improving Post-Secondary Education. Boulder, CO: National Center for Higher Education Management Systems, 1985.

Gittell, Marilyn. "Reaching the Hard to Reach." Change. 17, no.4 (1985)

Hammons, Jim. "Five Potholes in the Road to Community College Excellence." Community College Review. 15, no.1 (1987).

Hansen, Janet S. Student Loans: Are They Overburdening a Generation?. Washington, DC: College Entrance Examination Board, 1987.

Hartman, Rhona C. "High School to College: Advising Disabled Students for Success." Presented at the annual meetings of the National Association of College Admissions Counselors. Washington, DC, October, 1986.

Harvey, Dexter, and Orest Cap. Elderly Service Workers' Training Project. Winnepeg: University of Manitoba, 1987.

Hites, Jeanne M. and Sherri Casterline. "Adapting Training for Other Cultures." Presented at the Annual Conference of the National Society for Performance and Instruction. San Francisco, California, April, 1986.

Israel, Cary A. and Harriet H. Custer. "Making Economic Development Work." Community Services Catalyst. 16, no.4 (1986)

Johnston, William B. Workforce 2000: Work and Workers in the 21st Century. Indianapolis: Hudson Institute, 1987.

Landrum, Bertha A., Jackie Presser, and Robert W. Scott. "Can Community Colleges Have an Impact on Unemployment." Community and Junior College Journal. 55, no.6 (1985)

Losak, John. "Institutional Effectiveness in the Two-Year College." Presented at the annual meetings of the League for Innovation in the Community College. Charlotte, NC, July, 1988.

Manning, Ian. "Alternative Finance for Tertiary Teaching." Australian Universities' Review. 29, no.2 (1986)

McClenney, Kay M. and Byron N. McClenney. "Managing for Student Success and Institutional Effectiveness." Community, Technical, and Junior College Journal. 58, no.5 (1988)

McCloud, Marshall W. and Ronald A. Carter. "The Measure of Quality in Two-Year Colleges". Community College Review. 13, no.3 (1986)

MDC, Inc. The Bridge to The Next Century. Chapel Hill, NC: The Commission on the Future of the North Carolina Community College System, 1988.

Mecca, Thomas V. and James L. Morrison. "Pathways to the Future: Linking Environmental Scanning to Strategic Management." Community College Review. 15, no.4 (1988)

Moore, Kay McCullough. "Assessment of Institutional Effectiveness." New Directions for Community Colleges. 14, no.4 (1986)

Moss, M. William. "Community Services/Community Colleges--Separate Definitions/Separate Goals?" Community Services Catalyst. 16, no.4 (1986)

Mueller, Kathy. "Instituional Effectiveness: Special Clientele." Presented at the anuual meetings of the League for Innovation in the Community College. Charlotte, North Carolina, July, 1988.

Murray, Doug. "Vocational Training for Native Students in Alberta and the N.W.T." Canadian Journal of Native Education. 12, no. 3 (1985)

National Coalition for Women and Girls. Working Toward Equity: A Report on the Implementation of the Carl D. Perkins Vocational Education Act. Washington,DC: NCWG, 1988.

Nunley, Charlene. "Focus on the Future: Involving Institutional Constituencies in Environmental Examination." Planning for Higher Education. 15, no.1 (1987)

O'Shea, Helen. "Achieving Wider Access to Tertiary Education." Journal of Tertiary Education. 8, no.1 (1986)

Orfield, Gary and Faith Paul. "Declines in Minority Access: A Tale of Five Cities." Educational Record. 68, no. 4 (1988)

Palmer, Jim. "Sources and Information: The Social Role of the Community College." New Directions for Community Colleges. 14, no.2 (1986)

Parnell, Dale. Building Communities. Washington, DC: AACJC, 1988.

Peniche, Eduardo A. "Foreign Language and Cross-Cultural Education in the Promotion of International Trade." Hispania. 68, no.1 (1985)

Richardson, Richard, Jr. "A Question of Quality: University Programs for Community College Leaders." Community, Junior, and Technical College Journal. 57, no.4 (1987)

_____. "Improving Effectiveness Through Strategic Planning." Community College Review. 15, no.4 (1988)

_____. "How Are Students Learning?" Change. 17, no.3 (1985)

Roueche, John E., George A. Baker, and Suanne D. Roueche. "Open Door or Revolving Door? Open Access and the Community College." Community, Junior, and Technical College Journal. 57, no.5 (1987)

Scott, Robert. "Proven Partners: Business, Government, and Education." Community, Junior, and Technical College Journal. 57, no.3 (1987)

Seybert, Jeffrey A. "Institutional Effectiveness in Community Colleges: Career Programs." Presented to the annual meetings of the League for Innovation in the Community College. Charlotte, North Carolina, July, 1988.

Shumer, Robert. "Taking Community Service Seriously." Community Education Journal. 15, no.1 (1987)

Sommers, Jeffrey and Virginia Ellis Palmer. "Bringing the Campus, the Community, and the Study of Literature Together." Teaching English in the Two-Year College. 12, no.1 (1985)

Southern Regional Education Board. Access to Quality Undergraduate Education in the Two-Year College: A Report to the Southern Regional Education Board by Its Commission for Educational Quality. Atlanta: SREB, 1987.

Stevenson, Thomas B. "A Workshop in Transcultural Nursing." Community College Review. 13, no.3 (1986)

Vaughn, George B. "Maintaining Open Access and Comprehensiveness" New Directions for Community Colleges. 13, no.4 (1985a)

Vaughn, George B. "Maintaining Open Access to Higher Education: The Continuing Challenge." Phi Kappa Phi Journal. 65, no.3 (1985b)

Vaughn, George B. and Robert G. Templin, Jr. "Value Added: Measuring the Community College's Effectiveness." Review of Higher Education. 10, no.3 (1987)

Venditti, Phillip N. and Robert Bahruth. A Resource Manual for Introducing ESL Students to Aspects of the American Culture. Austin, TX: Austin Community College, 1987.

Weiss, Marv, and Bruce Bryden. "What Are the Challenges Facing Small, Rural, Community Colleges Today?" Community, Junior, and Technical College Journal. 57, no.3 (1987)

Wilson, Reginald. "Minority Students and the Community College." New Directions for Community Colleges. 14, no.2 (1986)

Zeiss, Anthony. Positioning Community Colleges via Economic Development. Los Angeles: ERIC, 1986.

ERIC Clearinghouse for Junior Colleges MAR 03 1989